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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,628	06/27/2003	Ajay Rajkumar	7650-0021	8462

51094 7590 04/12/2007
MCCORMICK, PAULDING & HUBER LLP
185 ASYLUM STREET
CITY PLACE II
HARTFORD, CT 06103

EXAMINER

CHOU, ALBERT T

ART UNIT	PAPER NUMBER
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2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/608,628

Applicant(s)

RAJKUMAR ET AL.

Examiner

Albert T. Chou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 15 recites a method of transmitting information, the method comprising the step of aggregating at least a portion of information based on user service requirements. Claim 15, however, does not provide a practical application that produces a useful, tangible and concrete result. Therefore, it is considerable non-statutory under 35 U.S.C. 101. See USPTO Interim Guidelines for Patent Subject Matter Eligibility (pp. 18-23).

Claims 16-19 depend from claim 15 and, therefore, are rejected on the same basis of rejection.

Claim 20 recites a method for receiving information, the method comprising the step of de-aggregating received information where such information is aggregated based on user service requirements. Claim 20, however, does not provide a practical application that produces a useful, tangible and concrete result. Therefore, it is

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considerable non-statutory under 35 U.S.C. 101. See USPTO Interim Guidelines for Patent Subject Matter Eligibility (pp. 18-23).

Claims 21 and 22 depend from claim 20 and, therefore, are rejected on the same basis of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "*the de-aggregator has an input for coupling to a first buffer and an output for coupling to a second buffer*". Examiner assumes this is an intended use of Applicants' de-aggregator.

Claim 13, however, recites the limitation "*the de-aggregator provides the de-aggregated information to the first buffer for outputting such information*". This limitation appears to be in conflict with the limitation recited in claim 12.

Claim 14, recites the limitation "*the de-aggregator has an input coupled to a second buffer*". Again, this limitation appears to be in conflict with the limitation "*an output for coupling to a second buffer*" recited in claim 12.

Furthermore, claim 14 recites "*an input coupled to a second buffer*". It is not clear whether the recited limitation "*a second buffer*" in claim 12 and the recited limitation "*a second buffer*" in claim 14 are the same buffer or two separate buffers.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10-15, 17, 18 and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 7,002,993 to Mohaban et al. (hereinafter "Mohaban").

Regarding claims 1 and 15, Mohaban teaches a communication equipment [Fig. 2; VoIP POP 215] and a method of transmitting information comprising: an aggregator [Fig. 2; A VoIP POP with Aggregator 219/Swtich 222/VoIP Gateway 220] for

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aggregating information based on user service requirements [Fig. 2; aggregated media packets received from IP Phone, Workstation 227 or PSTN Phone 225 based on time-delay requirements for VoIP, streaming media, etc; col. 4, lines 15-20, 38-46, 52-57] and for transmitting the aggregated information [Fig. 2; Transmitting aggregated information to IP WAN 217].

Regarding claim 2, Mohaban teaches the aggregating of the information is further based on allowed transmission rate [Fig. 3, step 334; It is inherent in Mohaban that the aggregating of the information is based on allowed transmission rate which VoIP POP 215 can transmit to IP WAN 217, since, in step 334, VoIP POP 215 sends the aggregated packet for transmission once the aggregated media packet has reached to the preconfigured threshold length. Namely, the link transmission rate between VoIP POP 215 and IP WAN 217 is a factor (limiting the delay) to determine the maximum length of the aggregated, delay-sensitive media packet; col. 5, lines 6-30]

Regarding claim 3, Mohaban teaches the aggregator has an input for coupling to a first buffer [Fig. 2; The Aggregator 219 is coupled to Switch 222 and VoIP Gateway 220. A buffer is inherent in Switch 222 and VoIP Gateway 220 in order for aggregating packets received from IP Phone, Workstation 227 or PSTN Phone 225].

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Regarding claim 4, Mohaban teaches the first buffer receives information from a terminal equipment from which said first buffer retrieves the information if the communication equipment operates in a terminal mode **[Fig. 2; VoIP POP 215 retrieves and aggregates the information based on a pre-configured media packet length threshold; col. 5, liens 13-24]** and the first buffer receives information from equipment other than terminal if the communication equipment operates in a relay mode **[Fig. 2; based upon expiration of a pre-selected maximum delay time value, not at a fixed rate; col. 5, lines 25-29]**.

Regarding claim 5, Mohaban teaches the first buffer retrieves the information in accordance with time delay requirements of the information **[Fig. 2; A voice/RTP packet is the delay-sensitive/real-time information]**.

Regarding claim 6, Mohaban teaches the aggregated information from the aggregator is fed to a second buffer **[Fig. 2; A buffer is inherent in Router 221]** coupled to an output of the aggregator for outputting the information in accordance with time delay requirements of the information **[Fig. 2; Router 221 routes aggregated media packets received from IP Phone, Workstation 227 or PSTN Phone 225 based on time-delay requirements for VoIP, streaming media, etc; col. 4, lines 15-20, 38-46, 52-57]**.

Regarding claim 7, Mohaban teaches the user service requirements are related to quality of service provided to users of a communication system within which the equipment is being used **[Fig. 2; User service requirements for IP Phone, Workstation 227 or PSTN Phone 225 are related to time-delay requirements provided by the VoIP POP 215; col. 4, lines 15-20, 38-46, 52-57]**.

Regarding claim 8, Mohaban teaches the information comprises real time information **[Fig. 2; a voice/RTP packet is the real time information]**.

Regarding claims 10 and 20, Mohaban teaches a de-aggregator **[Fig. 2; VoIP POP 215]** for de-aggregating received information and a method for receiving information aggregated based on user service requirements **[Fig. 2 with traffic flow directed from IP WAN 217 toward IP Phone 223, Workstation 227 and PSTN Phone 225 based on time-delay requirements for VoIP or streaming media; col. 4, lines 15-20, line 67 – col. 5, line 4]**.

Regarding claim 11, Mohaban teaches the de-aggregator transfers the de-aggregated received information in accordance to time delay requirements of the information to a terminal equipment, if the communication equipment operates in a terminal mode **[Fig. 2; VoIP POP 215 transfers the de-aggregated information based on time-delay requirements for VoIP, streaming media, etc, to PSTN Phone 225; col. 4, lines 15-20, 38-46, 52-57]** and the de-aggregated information is transferred

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to equipment other than terminal equipment if the communication equipment operates in a relay mode **[Fig. 2; the de-aggregated information is transferred to IP Phone 223 and Workstation in a relay/switching mode].**

Regarding claims 12 and 21, Mohaban teaches the de-aggregator has an input for coupling to a first buffer **[Fig. 2; A buffer is inherent in Router 221 which is coupling to the input of (De-) Aggregator 219]** and an output for coupling to a second buffer **[Fig. 2; The (De-) Aggregator 219 is coupled to Switch 222 and VoIP Gateway 220. A buffer is inherent in Switch 222 and VoIP Gateway 220 in order to transfer the de-aggregated packets to IP Phone, Workstation 227 or PSTN Phone 225 based on time-delay requirements for VoIP or streaming media; col. 4, lines 15-20].**

Regarding claims 13, 14 and 22, Mohaban teaches the de-aggregator **[Fig. 2; VoIP POP 215]** provides the de-aggregated information to the second buffer for outputting such information in accordance with the time delay requirements of the received information **[Fig. 2; The (De-)Aggregator 219 is coupled to Switch 222 and VoIP Gateway 220. A buffer is inherent in Switch 222 and VoIP Gateway 220 in order to transfer the de-aggregated packets to IP Phone, Workstation 227 or PSTN Phone 225 based on time-delay requirements for VoIP or streaming media; col. 4, lines 15-20].**

Regarding claims 17 and 18, Mohaban teaches the step of buffering the aggregated information and the buffered aggregated information is outputted in accordance with timing delay requirements of the information **[Fig. 2; It is inherent in Mohaban that VoIP POP 215 and Router 215 buffer the aggregated information. Router 221 routes aggregated media packets based on time-delay requirements for VoIP, streaming media, etc; col. 4, lines 15-20, 38-46, 52-57].**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,002,993 to Mohaban et al. (hereinafter "Mohaban") in view of US Patent No. 6,839,356 to Barany et al. (hereinafter "Barany").

Regarding claims 9, 16 and 19, Mohaban teaches each limitation set forth in its parent claim.

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Mohaban does not expressly disclose the aggregator performs channel coding and modulation on the aggregated information and the information is encoded prior to being aggregated.

Barany teaches the aggregator performs channel coding and modulation on the aggregated information and the information is encoded prior to being aggregated **[Fig. 2; VoIP G/W 208 comprises an AMR Codec]**.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate a codec into Mohaban's VoIP POP 215/VoIP Gateway 220 to perform the channel coding and modulation on the aggregated information.

The motivation for combining the reference teachings not only would allow a VoIP POP to aggregate multiple media packets to improve end-to-end efficiency, but also enable VoIP POP to use a serving Adaptive Multirate (AMR) coder/decoder (AMR CODEC) to efficiently code and decode the VoIP payload using a minimum resource set.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent Application Pub. No. 2001/0043577 A1 by Barany et al. disclose "System And Method For Controlling A Wireless Packet Switched Voiced Call"

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- US Patent No. 7,72,336 to Barany et al. disclose "Communications Using Adaptive Multi-Rate CODECS"
- US Patent No. 7,149,795 to Sridhar et al. disclose "Distributed Quality-Of-Service System"


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert T. Chou whose telephone number is 571-272-6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Albert T. Chou
March 21, 2007

Ac


CHI PHAM
SUPERVISORY PATENT EXAMINER
4/10/08